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EXAMINER	
WANG, RONGFA PHILIP	
ART UNIT	**PAPER NUMBER**
2192	

DATE MAILED: 07/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/073,954	ESCHERMANN ET AL.	
	Examiner	Art Unit	
	Philip Wang	2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 February 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☒ Claim(s) *14, 26 and 27* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *2/14/2002* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *2/14/2002*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Detail Action

1. This office action is in response to the application filed on 2/14/2002.

2. Claims 1-27 are pending.

Priority

3. Acknowledgement is made of applicant's claim for foreign priority under 35 USC § 119 9(a)-(d). The certified copy of the EPO application (01810161.8) has been placed in the application on file.

Objections

Drawing

4. The drawings are objected to under 37 CFR 1.83(a) because they fail to show textual description of the invented entities as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a

drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. The disclosure is objected to because of the following informalities:

a. The office recognizes that claims are part of the specification, however citing claims from within the specification may cause unnecessary confusion in the future as claims may be amended, cancelled or renumbered following due office actions. There are many placed in the submitted specification citing claims. They are:

[0023], claims 1, 14, 21 and 27 are cited.

[0069], line 3, "... method as claimed" cites claimed method.

b. Page 3, line 5, "XML documents are documents which" should be "XML documents are documents with".

c. Page 5, [0014], line 9, "The marker language" should be "The markup language".

d. Page 9, last line, "DTP" should be "DTD".

e. [0071] is a sentence without an ending period.

Appropriate correction is required.

Claims

6. Claims 14, 26 and 27 are objected to because of the following informalities:

Claims 14 and 26 cite the limitations of claim 1. Claim 27 cites the limitations of claim 21. These are not proper ways to claim inventions. In the process of examining this patent application, claims may be amended, renumbered, or cancelled. What is being claimed in the above claims might become indefinite due to reasons above. The applicant needs to state explicitly what is claimed instead of referring to other claims.

The office will examine claims 14, 26 and 27 by replacing the referenced claims with the content of individual claims.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

7. Claims 1-13, 14, 26 and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Per claim 1, the applicant states, in the specification, "an application unit should be regarded as any unit... in the form of hardware... or software..." As software by itself lacks embodiment of invention and is not patentable, the alternative situation in the specification makes the claim indefinite pertaining to patentability of the claim.

Claims 2-13 are dependent claims of claim 1 and suffer the same deficiencies of claim 1 above.

Also claim 4 recites the limitation "the API". There is insufficient antecedent basis for this limitation in the claim. This can be overcome by

claiming claim 4 as a depend claim of claim 2. In the course of this examination, the office will assume claim 4 is a depend claim of claim 2.

Claims 14 and 26 cite the limitations of claim 1. Claim 27 cites the limitations of claim 21. In the process of examining this patent application, claims may be amended, renumbered, or cancelled. What is being claimed in the above claims might become indefinite due to reasons above. The applicant needs to state explicitly what is claimed instead of referring to other claims.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 1-23, 25 and 26 are rejected under 35 U.S.C 101 as the claimed inventions are directed to non-statutory subject matter.

Per claim 1, there is no tangible embodiment in this claim. Though the specification (page 10, [0032], "an application unit ... is in the form of hardware ... or software) indicates an application unit can be either hardware or software. The office interprets the application unit is software based the alternative description given in the specification.

Claims 2-13 are dependent claims of claim 1 and suffer the same deficiency of claim 1 and are rejected for the same reason set forth for the rejection of claim 1.

Claims 14-20 also lacks tangible embodiment and are rejected for the same reason set forth for the rejection of claim 1.

9. Claims 21-23, 25-26 cite steps that could be performed by a person using pen and pencil on a piece of paper. Specifically, the steps of producing application information items, information presentation conforming to a predetermined DTD and markup language document in claim 21, checking syntax an/or semantics of application parameters in claim 22, checking correctness of content in claim 23, appliance configuration parameters in claim 25 and producing API-conformal calls in claim 26 can all be performed manually by pen and pencil without the presence of hardware. The language of the claim raises a question as to whether the claims are directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C 101.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 1-4, 6-19, 21-27 are rejected under 35 U.S.C. 103(e) as being unpatentable over Lonnroth et al. (U.S. Patent No. 6,826,597) in view of Claussen et al. (U.S. Patent No. 7,718,516).

Per claim 1, Lonnroth et al. disclose **a preprocessor comprising at least one predetermined interface for interchanging information with interfaces of application units; and a conversion means for converting application information from an application unit into calls to a markup language processor, and for converting markup language information from the markup language processor into return information for transmission to an application unit, with the return information being interpretable by the application unit** (See Fig. 2 for pre-processor and gateway; there are interface shown to interchange information with application units; col. 5, line 8-9, "Pre-processor is configured to receive and process requests from clients"; col. 6, line

9-10, "XML gateways are mechanisms for converting between XML and messages produced by other types of data sources.").

Lonnroth et al. do not disclose document type information (DTD).

However, Claussen et al. disclose **Document Type Definition (DTD)** (col. 1, line 23-26, "The logical structure of the document typically is specified in a Document Type Definition (DTD).").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teaching of Claussen et al. into the teaching of Lonnroth et al. to include DTD. The modification would be obvious to one of ordinary skill in the art to want to be able to validate the proper use of the tags (col. 1, line 26-29, "A DTD may be used by the author to define a grammar for a set of tags for the document so that a given application may validate the proper use of the tags.").

Per claim 2, the rejection of claim 1 is incorporated; further Lonnroth et al. disclose that **the preprocessor has at least one interface for transmitting calls to the markup language processor and for receiving markup language information from the markup language processor**(col. 6, line 12- , "For example, one XML gateway maybe... convert between XML and HTML message... " Also, Fig. 2 shows there is an interface between XML processor 242 and preprocessor 240.).

Lonnroth et al. do not teach the markup language processor is conforming with a predetermined API, and the calls are API-conforming calls.

However, Claussen et al. disclose **the markup language processor is conforming with a predetermined API, and the calls are API-conforming calls** (col. 7, line 54-55, "...available to the process method for manipulating through DOM APIs.").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teaching of Claussen et al. into the teaching of Lonnroth et al. to include API. The modification would be obvious to one of ordinary skill in the art to want to have a standardized and language-neutral way interface so the system can be easily extended and accessed by different application units (col. 4, line 37-40, "The Document Object Model is a platform and language-neutral interface...").

Per claim 3, the rejection of claim 1 is incorporated; further Lonnroth et al. disclose that **the markup language for the markup document is XML, and the markup language processor is an XML processor**(col. 6, line 48-51, "...XML request, the XML processor... XML response documents received...").

Per claim 4, the rejection of claim 2 is incorporated.

Lonnroth et al. do not disclose that the API is the Document Object Model (DOM).

However, Claussen et al. disclose that **the API is Document Object Model (DOM)** (col. 7, line 54-55, "...available to the process method for manipulating through DOM APIs.").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teaching of Claussen et al. into the teaching of Lonnroth et al. to include DOM. The modification would be obvious to one of ordinary skill in the art to want to have a standardized and language-neutral interface so the system can be easily extended and accessed by different application units with an well established industry standard (col. 4, line 37-40, "The Document Object Model is a platform and language-neutral interface...").

Per claim 6, the rejection of claim 1 is incorporated; further Lonnroth et al. disclose that **the application information and the calls include instructions** (col. 4, line 30, "Clients send requests ... The services specified in the service requests vary widely in complexity. For example, one service may simply involve obtaining a particular piece of information... Yet another service many involve running searches..." In these scenarios, actions such as "obtaining" and "running" were carried out. That shows that instructions are included in application information/calls as claimed above.).

Per claim 7, the rejection of claim 1 is incorporated; further Lonnroth et al. the **application information and the calls include structure information for**

building into a markup language file which is processed by the markup language processor (col. 3, line 23-26, "The gateway convert the responses received from the data sources into XML, which the XML processor uses..", where XML is a markup language.).

Lonnroth et al. do not disclose that the markup language file is valid with respect to the DTD.

However, Claussen et al. disclose that **the markup language file is valid with respect to the DTD** (col. 1, line 24-26, "The logical structure of document typically is specified in a Document Type Definition (DTD).").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teaching of Claussen et al. into the teaching of Lonnroth et al. to include a markup language with respect the DTD. The modification would be obvious to one of ordinary skill in the art to want to be able to validate the proper use of the tags (col.1, line 26- n27, "A DTD may be used... so that a given application may validate the proper use of the tags.").

As per claim 8, the rejection claim 1 is incorporated; further Lonnroth et al. disclose **the return information includes structure information relating to a markup language which is processed by the markup language processor** (col. 7, line 16-18, "The composite XML response document produced by this process is passed from the XML processor to post processor.").

Lonnroth et al. do not disclose that the markup language file is valid with respect to the DTD.

However, Claussen et al. disclose that **the markup language file is valid with respect to the DTD** (col. 1, line 24-26, "The logical structure of document typically is specified in a Document Type Definition (DTD).").
Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teaching of Claussen et al. into the teaching of Lonnroth et al. to include a markup language with respect the DTD. The modification would be obvious to one of ordinary skill in the art to want to be able to validate the proper use of the tags (col.1, line 26- n27, "A DTD may be used... so that a given application may validate the proper use of the tags.").

As per claim 9, the rejection of claim 8 is incorporated; further Lonnroth et al. further disclose that **the structure information includes identifier information and/or content information** (col. 3, line 19-20, "... objects are XML-structures documents..." It is inherent that XML structured documents include tags and text enclosed within tags. Refer to "Platinum Edition Using HTML 4, XML, and Java 1.2", section "XML Overview" for more detail.).

As per claim 10, the rejection of claim 1 is incorporated; further Lonnroth et al. disclose **the application information includes appliance configuration parameters for producing a markup language document for the configuration of at least one configurable appliance** (col. 9, line 39, "The parameters associated with a request..."; col. 5, line 34-35, "a request object in the form of an XML documents"; col. 4, line 39- 41, "Yet another service may

involve..., updating numerous databases...". The process of configuring an appliance involves updating database on the appliance. In this context, a service request can be made, with parameters associated with the request, to update databases, which may reside on a configurable appliance.).

As per claim 11, the rejection of claim 1 is incorporated; further Lonnroth et al. disclose **the return information includes appliance configuration parameters for an existing markup language document for the configuration of at least one configurable appliance** (col. 9, line 39, "The parameters associated with a request..."; col. 7, line 16-18, "The composite XML response document produced by this process is passed from XML processor to post processor."; col. 4, line 39- 41, "Yet another service may involve..., updating numerous databases...". The process of configuring an appliance involves updating database on the appliance. In this context, a service request can be made, with parameters associated with the request, to update databases, which may reside on a configurable appliance.).

As per claim 12, the rejection of claim 1 is incorporated. Lonnroth et al. do not disclose means for checking syntax of the received information for conformity with the DTD.

However, Claussen et al. disclose **means for checking syntax of the received information for conformity with the DTD** (col. 1, line 26-29, "A DTD may be

used the author to define a grammar...", where a grammar inherently defines the syntax correctness.).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teaching of **Claussen et al.** into the teaching of **Lonnroth et al.** to include checking syntax of the received information conforming to a DTD. The modification would be obvious to one of ordinary skill in the art to want to validate the proper use of tags to reduce the amount errors that may happen in the process of processing information (col. 1, line26-29, "A DTD may... validate the proper use of the tags.").

As per claim 13, the rejection of claim 1 is incorporated; further Lonnroth et al. disclose **means for checking the logical correctness and/or permissibility of structure information included in the information** (col. 5, line 60, "Upon verifying that...").

As per claim 14, it is the system claim corresponding to preprocessor claim 1 and is rejected for the same reason set forth in connection of the rejection of claim 1.

As per claim 15, the rejection of claim 14 is incorporated; further Lonnroth et al. disclose **the preprocessor and the markup language processor are combined to form a functional unit** (Fig. 2. the components on the upper half including gateway 202, pre processor 240, XML processor 242, and post

processor 244 can be viewed as a functional unit performing the combined function of the preprocessor and the markup language processor as claimed.).

As per claim 16, the rejection of claim 14 is incorporated; further it is the system claim corresponding to preprocessor claim 2 and is rejected for the same reason set forth in connection of the rejection of claim 2.

As per claim 17, the rejection of claim 14 is incorporated; further Lonnroth et al. disclose **the application unit is a configuration program** (Fig. 2, col. 9, line 39, "The parameters associated with a request..."; col. 5, line 34-35, "a request object in the form of an XML documents", so the phone 210, is a device that contain a configuration program that can send parameters.).

As per claim 18, the rejection of claim 14 is incorporated; further Lonnroth et al. disclose **the application unit is a configurable appliance** (Col. 3, line 13-14, "... allowing clients to retrieve data ..."; Fig. 2, phone 210, is considered a configurable appliance as it is capable of receiving data. A new set of data represents a new state of the appliance, so it is being configured to a new state.).

As per claim 19, the rejection of claim 14 is incorporated, further it is the system claim corresponding to preprocessor claim 10 and is rejected for the same reason set forth in connection of the rejection of claim 10.

As per claim 21, it is the method claim corresponding to preprocessor claim 1 and is rejected for the same reason set forth in connection of the rejection of claim 1.

As per claim 22, the rejection of claim 21 is incorporated, further it is the method claim corresponding to preprocessor claim 12 and is rejected for the same reason set forth in connection of the rejection of claim 12.

As per claim 23, the rejection of claim 21 is incorporated, further it is the method claim corresponding to preprocessor claim 13 and is rejected for the same reason set forth in connection of the rejection of claim 13.

As per claim 24, the rejection of claim 21 is incorporated, further it is the method claim corresponding to preprocessor claim 2 and is rejected for the same reason set forth in connection of the rejection of claim 2.

As per claim 26, the rejection of claim 21 is incorporated, further it is the method claim corresponding to preprocessor claim 2 and is rejected for the same reason set forth in connection of the rejection of claim 2.

As per claim 27, it is the computer program product claim corresponding to method claim 21 and is rejected for the same reason set forth in connection of the rejection of claim 21.

11. Claims 5, 20 are rejected under 35 U.S.C. 103(e) as being unpatentable over Lonnroth et al. (U.S. Patent No. 6,826,597) in view of Claussen et al. (U.S. Patent No. 7,718,516), further in view of the applicant's application.

Per claim 5, the rejection of claim 1 is incorporated. Lonnroth et al. disclose the teaching of a preprocessor to interface with application units (Fig. 2. the components on the upper half including gateway 202, pre processor 240, and post processor 244 can be viewed as a preprocessor between application units and XML processor); further Claussen Claussen et al. disclose DTD (col. 1, line 23-26, "The logical structure of the document typically is specified in a Document Type Definition (DTD).") Neither Lonnroth et al. nor Claussen et al. disclose SCL conforming DTD.

However, the applicant admitted that SCL is an industry standard known as Version 1.0 Part 6 of IEC 61850 (herein APA, page 2, [0008], "SCL is based on ... Version 1.0 Part 6 of IEC 61850 include a DTD")

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teaching of APA into the teaching of Lonnroth et al. and Claussen et al. to include SCL in a preprocessor. The modification would be obvious to one of ordinary skill in the art to want to

implement a SCL conforming preprocessor to interface with application units in that business market. As an industry standard is recommended, a person skilled in the art would be motivated to build applications conforming to that standard in anticipation of market need.

Per claim 20, it is the system claim corresponding to preprocessor claim 5 and is rejected for the same reason set forth in connection of the rejection of claim 5.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip Wang whose telephone number is 571-272-5934. The examiner can normally be reached on Mon - Fri 8:00AM - 4:00PM. Any inquiry of general nature or relating to the status of this application should be directed to the TC2100 Group receptionist: 571-272-2100.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam can be reached on 571-272-3695. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WEI Y. ZHEN
PRIMARY EXAMINER

Tree

1. Preprocessor:
   - interface to application unit.
   - Conversion means for
     - Converting application information to calls to mark up language processor
     - Converting markup language information back to application unit.

2. -- markup language processor conforming with API [?? Is it part of the preprocessor??]
   -- has interface to send/receive information to/from application unit.
   4. API is DOM
3. markup language is XML; XML processor [?? "the markup language document"]

5. SCL conforming preprocessor
6. application information and calls include instructions
7. app. Info/ calls include structure information into a markup language conforming to DTD.
8. return info. Include structure information into a markup language conforming to DTD.
   9. structure information include identifier / content information
10. app. Info. Include appliance configuration parameters for producing markup language document.
11. return infor. includes appliance configuration
12. conversion means – checking the syntax in order to conform to DTD
13. conversion means – checking logical correctness / permissibility of structure information

14. system for processing valid markup language documents conforming to a DTD
    - an application unit producing/reading application information items.
    - Preprocessor exchanges information with markup language processor {C1}

15. preprocessor and markup language processor are combined to form a functional unit.

16. markup language processor – generic, API-conforming
17. application unit is a configuration program.
18. application unit is a configuration appliance.
19. application information items – appliance configuration parameters.
20. DTD is SCL.

21. Methods – producing markup language documents conforming to DTD.

22. application parameters checked syntactically and/or semantically
23. application parameters – check "the sense of their content" [what does this mean??]
24. producing valid markup language document : produce calls, transmit calls, execute calls.
25. application information items – appliance configurable parameters for configurable appliance.
26. produce API-conformal calls by preprocessor → C1

→ C 21